



MANAGEMENT DISCUSSION & ANALYSIS REPORT (MD&AR) FOR THE YEAR 2019-20

1.0 INDUSTRY STRUCTURE AND DEVELOPMENT

Coal in India and Coal India Limited

Coal remains the predominant indigenous energy source and accounts for 55% of primary commercial energy in India. The energy security of the country and its prosperity are integrally linked to efficient and effective use of this abundant, affordable and dependent fuel, coal.

In terms of availability, coal is the most abundant fossil fuel in India. The geological resources of coal in India are in excess of ~ 326 Billion Tonnes. At the current rate of production, the reserves are adequate to meet the demand for multiple centuries to follow.

Government of India envisages providing access to clean, cheap and sustainable electricity to the entire population of the nation. Though the proportion of non-coal sources, particularly renewables, has increased over the last few years, yet coal shall remain the dominant fuel source for electricity generation in India in near future as well.

Today India is the 2nd largest producer of coal in the world producing about 729 Million tonne (Mt) of coal in 2019-20. The coal sector in India is dominated by state producers including Coal India Limited and Singareni Collieries Company Limited. Coal India Limited (CIL), with its seven wholly-owned coal producing subsidiaries and one mine planning and consultancy company, is the single largest coal producing company in the world, with a total production of 602.14 (Mt) during the fiscal 2019-20 which is about 83% of the total coal produced in the country.

2.0 SWOT ANALYSIS

Strengths	Weaknesses
<ul style="list-style-type: none"> Large scale of operations allow economies in scale of production. Vast coal resource base. Geographical spread of operations in India allows proximity to a large and diversified customer base. Strong finance credentials. Skilled and diversified workforce with experience. Well positioned to cater to high demand of coal in India. Consistent track record of growth & strong track record of financial performance. Strong capabilities for exploration, mine planning and operations. Lowest selling price of coal. 	<ul style="list-style-type: none"> High cost of production in underground (legacy) mines. Evacuation infrastructure bottleneck in certain areas due to land, statutory clearance and law & Order issues. Inherent inferior quality of indigenous coal due to high ash content. Constraints in land acquisition.
Threats	Opportunities
<ul style="list-style-type: none"> Resistance to part with land, creating problems in possession of land and rehabilitation. Rapid appreciation in land cost. Decrease in coal demand and Increase in proportion of renewables in the energy mix. Energy storage solutions. 	<ul style="list-style-type: none"> Coal to remain the key primary energy source in India. Large scale rural electrification and power for all under UDAY scheme. Enhanced demand of power due to increased use of electric vehicles. Optimizing production cost through Linkage rationalization. Export opportunities to neighboring countries. Strong economic growth in India and resultant demand for energy, particularly coal as an energy source. Being a cheaper source of energy compared to alternate sources available in India, demand to continue to remain strong. Opportunity to adopt coal to liquid and coal to gas technology. Opportunity for reducing non-essential imports of thermal coal.



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3.0 SEGMENT WISE PERFORMANCE

Production, Off-take OBR performances are available in Director's Report

4.0 OUTLOOK

CIL had envisaged coal supply target of 710 Mt in 2020-21 which is a growth of about 22% over the previous year. About 80% of the said supply would be consumed by power sector only. CIL's growth plan for the future is in synergy with the ambitious plan of the Government for 24x7 power supply to all homes in the country.

For sustainability and growth, thrust is on minimizing the environmental impact and qualitative improvement in coal production through selective mining, beneficiation and diversifying into clean coal technologies.

Apart from creating new railway infrastructure, optimum utilization of existing capacity through linkage auction scheme is being ensured through an in-built system of source rationalization for non-regulated sector. Further, it has been envisaged to ensure "First Mile Connectivity (FMC)" to consumer through non-road mode like conveyors, MGR/Rail etc.

CIL is also exploring opportunities to diversify into coal to chemical business. This is to ensure greater value addition and thereby improving financial performance of the company and ensuring long term sustenance.

CIL has planned a capital investment of ₹ 10000 Crores for maintaining its volume growth in 2020-21 and beyond. In addition, the company has also envisaged for investing substantial amount in different schemes in 2020-21 such as development of railway infrastructure project, solar power, pit head power plants, surface coal gasification, Coal Bed Methane (CBM), revival of fertilizer plants etc.

Marketing Outlook :

Considering the country's future dependence on coal based generation, the target for the year 2020-21 has been decided at the optimistic level of 710 MT.

CIL has taken major initiatives to build matching logistics infrastructure to ensure evacuation of planned quantity of production. CIL has undertaken major Railway Infrastructure Projects, implemented either by Railways on **deposit basis** or **JV Companies** formed between the Indian Railway represented by IRCON, Subsidiary Company and concerned State Government. The following project activities have been initiated to augment rail evacuation capacity:

- The major Railway Infrastructure Projects that have already been completed are: -
 - a. Tori Shivpur New BG Line (**deposit basis**) - This railway line caters to North Karanpura Area of CCL and is planned to evacuate about 32 MTY of coal.
 - b. Jharsuguda-Barpali-Sardega Rail Link (**deposit basis**) relates to the Basundhara coalfields of MCL and the envisaged capacity evacuation is 34 MTY of coal from MCL.
 - c. East Corridor – (Rail JV- CERL) This Rail Link refers to the area falling under command area of SECL. The railway link between Kharsia and Korichapar has commissioned in this fiscal.
- The three major railway infrastructure projects being undertaken by **JV mode** are as follows:
 - a. East Rail Corridor (CERL) and East West Rail Corridor (CEWRL) are planned for evacuation of coal of Mand- Raigarh and Korba – Gevra Coalfields of SECL respectively by Rail JVs CERL & CEWRL in the state of Chattisgarh. In all, about 100 MTY of coal shall be evacuated through these two corridors.
 - b. The Shivpur-Kathautia rail connectivity is envisaged to be executed by Rail JV, JCRL (Jharkhand Coal Railway Limited) formed among CCL (Central Coalfields Limited), Govt. of Jharkhand and Indian Railway represented by IRCON, in the state of Jharkhand. About 30 MTY coal from the mines of CCL is planned to be evacuated through this line.
 - c. MCRL (Mahanadi Coal Railway Limited) has been formed among MCL (Mahanadi Coalfields Limited), Govt. of Odisha and Indian Railway represented by IRCON, for creating rail infrastructure in the state of Odisha. The work has been taken up in two phases mentioned below:

Phase-1: Angul –Balram- Jarpada-Tentuloi link at Talcher CF of MCL (69.10 KM) which consists of Jharpada – Kalinga- Angul link (14.22 Km).

Phase-2: Tentuloi- Budhapank (136 KM approx.)

About 60 MTY of coal from MCL is envisaged to be evacuated from these rail lines and decongest as well as systemize the coal evacuation of the region.

Apart from the above projects undertaken by CIL, Railways have also taken up as their own projects like Barkakana-Barwadih-Garhwa Road third line, Jharsuguda-Bilaspur third and fourth line, DFC-Dadri to Sonenagar line, third and fourth lines from Talcher to Budhapank, third line from Budhapank to Rajatgarh, doubling of line from Singrauli to Shaktinagar via Karaila Road and Doubling of Singrauli to Mahadivya and Mahadivya to Katni section. These lines are expected to ease the existing congestions in the critical railway routes for smoother movement of freight traffic and facilitate evacuation of about 100 MT of coal.

CIL's present long term commitment for its power and non-power sector consumers is about 665 MTPA. Besides, the e-auction windows provide another avenue to the consumers for procuring coal and meeting their short term coal requirements. The subsidiary coal companies of



CIL regularly conduct such e-auctions to cater to the coal requirements of a wide array of customer segment. Further, fresh coal demand from the IPPs are met through linkage auctions conducted under the ambit of 'Scheme for Harnessing and Allocating Koyla (Coal) Transparently in India (SHAKTI)', the policy introduced by the Government on 22th May, 2017 and its further amendment dated 25th Mar, 2019. As far as the long term demand of the non-regulated sector consumers are concerned, CIL from time to time conducts linkage auctions for different sub-sectors such as Sponge Iron, Cement, CPP, Others, Others (Coking) and Steel (Coking) based on the Government's policy guidelines dated 15th Feb 2016.

In the area of customer satisfaction through quality assurance in business operations, CIL has taken several measures such as supply of (-) 100 mm sized coal to power sector consumers, extension of third party sampling facility to all sectors of consumers under all schemes, NABL accreditation of the major field level laboratories and equipping them with Automatic "Bomb Calorimeters" for ascertaining calorific value of coal and increasing the production through Surface Miners.

With the objective of transparency in mind, CIL has launched various simple menu driven APPs such as SEVA (Saral Eindhyan Vitran Application) for Power Consumers, Grahak Sadak Koyla Vitran, UTTAM (Unlocking Transparency by Third Party Assessment of Mined Coal) and CAMS (Coal Allocation Monitoring System) for distribution of coal through State Nominated Agencies. Such APPs helps the consumers and other stakeholders to have access to information regarding allocation, dispatch, third party quality assessment of dispatch etc.

Operations Outlook:

There are 123 Ongoing projects having ultimate capacity of about 668 Mty and sanctioned capital of about ₹ 87072 Crs. are under various stages of implementation in FY 2019-20. For achieving production target in 2020-21, EC for 21 proposals with incremental capacity of 78.59 Mty are under different stages of approval. In FY20-21, Stage-II FC is required for 11 mines involving 3180 Ha forest land to commensurate with coal production target. Also, total land to be possessed by the subsidiaries of CIL has been estimated to be 5543 Ha for achieving target in FY 2020-21.

The expansion program will be managed in a structured manner with the help of IT enabled solutions. The implementation of ERP solution to enable transparency in operations, maintenance and support functions is already underway. The project implementation of vital mines is being monitored through MDMS portal and on MS Project software.

The Company has already concluded two studies through reputed consultant for assessing the possible mechanization and automation levels across substantial number of mines. This is aimed at identification of opportunities in mine planning, exploration, survey, operations and maintenance.

In order to infuse state of art technology & efficiency of Private sector, initiatives have been taken for development of new blocks through MDO route.

To support increase in production on a sustainable basis, synergic growth in exploration is also envisaged. Increased use of hydrostatic drilling with PCD bits and 2D Seismic Survey Technology to achieve high rate in exploration have been planned. CIL will continue to focus on increasing its reserve base in India.

CIL is also in the process of augmenting the capacity of training institutes across subsidiaries, including IICM. Several other actions for building human resource capacity are being contemplated in collaboration with reputed institutions within the country and even abroad in their respective fields.

Outlook for sustainable growth:

CIL's projected coal production in the coming years shall materialize through closer liaison with other stakeholders. These include the Indian Railways, State Governments, Regulators, Community and other market participants. For being an Eco-Compliant Company, CIL's Green initiatives are as below:

- CIL has committed to become Net Zero Energy Company by generating 3GW of solar power and to implement the above Program, CIL has a plan to execute its solar power projects through the following organizations.
 - ✓ Solar Energy Corporation of India Ltd(SECI).
 - ✓ CIL NTPC Urja Pvt. Ltd.–Existing JVC
 - ✓ Proposed JVC of CIL and NLCIL.
- So far, CIL has already commissioned 4.77 MWp (2 MWp – ground mounted & 2.77 MWp – rooftop) in different subsidiaries and successfully generating solar energy for captive use.
- Apart from above, 10 MWp capacity of Grid connected Rooftop Solar Projects of seven subsidiaries and NEC are under implementation through a centralised Incentive scheme of Govt of India through SECI.
- CCL has floated a tender for 20 MW at Piparwar through PMC route and award of work is under process of scrutiny and approval.
- CIL is also exploring possibilities to install solar power projects in the available vacant land of subsidiaries. CIL has identified approximately 377 Ha of land to commission around 200 MW of solar power projects in ECL, BCCL, SECL, WCL and NCL.
- CIL has issued Comfort letter to purchase 120 MWp solar power under CPSE scheme to M/s NTPC. The signing of Power Usage Agreement with NTPC by the subsidiaries are under way.
- With a view to promote cleaner and alternate use of coal, CIL is exploring possibilities for setting-up a Surface Coal Gasification based Coal-to-Methanol plant of 0.676 MTPA capacity (Methanol) at DCC near Kolkata. An open global EOI has been floated on 20th Mar, 2020 to seek inputs from the interested parties for framing NIT document for setting-up the proposed plant on BOO mode.



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- Further, Coal India has also signed a MOU with Gas Authority of India Ltd., for venturing into the Coal gasification based Coal-to-Chemical and Coal-to-Synthetic Natural Gas projects. Feasibility Studies are underway.

Research & Development:

CMPDIL is the nodal agency for coordination and monitoring of S&T projects in the coal sector as well as R&D projects of CIL. The details of S&T and R&D projects taken-up by CMPDI on behalf of CIL are given in **Annexure A**.

5.0 RISKS AND CONCERNS

CIL has a comprehensive Risk Management Framework, which consists of (a) process to identify, prioritize and formulate mitigation plans for prioritized risks (b) framework of roles & responsibilities of various officials, Committees and the Board, in discharging the risk management process, periodicity of reporting (Risk Management Calendar) and related templates and enablers.

As part of this Risk Management Framework, risk owners and mitigation plan owners have been identified for each risk and corresponding mitigation plans to ensure continuous risk monitoring and risk mitigation. A sub-committee of the Board of Directors viz. Risk Management Committee (RMC) has been constituted in compliance with SEBI (LODR) Regulations 2015. The RMC, inter alia, is also responsible for the oversight of the risk identification, risk prioritization, mitigation plan formulation and risk monitoring activities in CIL.

CIL engaged a Consultant who worked under the guidance of RMC to facilitate implementation of the governance process envisaged in the Risk Management Framework, including facilitation for formulation of risk mitigation plans for the prioritized risks identified by CIL. This is being monitored by Chief Risk Officer (CRO) and his team under the direction of Risk Management Committee of CIL. New risks are also being identified and incorporated with time as per the direction of the Risk Management Committee of CIL.

6.0 INTERNAL CONTROL SYSTEMS AND THEIR ADEQUACY

Company has robust internal control systems and processes for smooth and efficient conduct of business and complies with relevant laws and regulations. A comprehensive delegation of power exists for smooth decision making. Elaborate guidelines for preparation of accounts are followed for uniform compliance. Further, all the key functional areas are governed by respective operating manuals. In order to ensure that all checks and balances are in place and all internal control systems are in order, regular and exhaustive internal audits are conducted by experienced firms of accountants in close co-ordination with the Company's Internal Audit Department.

The Internal Financial Controls of the Company were reviewed by Internal Auditors appointed. According to them, the Company has, in all material respects, laid down internal financial controls (including operational controls) and that such controls are adequate and were operating effectively during the year ended 31st March, 2020.

7.0 DISCUSSION ON FINANCIAL PERFORMANCE WITH RESPECT TO OPERATIONAL PERFORMANCE

FINANCIAL DISCUSSION AND ANALYSIS

During FY 2019-20, the group earned profit before tax (PBT) of ₹ 24071.32 crores and the net profit of ₹ 16700.34 crores.

A detailed discussion on financial performance and analysis is furnished below.

A. Total Income:

Total Income of the Company comprises Revenue from operations and Other income. Major revenue of the company under above two heads of total income includes income from sale of coal, other operating revenue such as loading and transportation charges recovered from customers, evacuation facility charges, consultancy and other services related to mine planning & designing, interest earned on investments such as term deposits with banks, dividend income from mutual funds etc. The total income for financial Year 2019-20 is ₹ 102185.74 crores as against ₹ 105422.67 crores in the previous year registering a decrease of 3.07%. The breakup of major elements of income are discussed below:

(₹ in crores)

Particulars	FY 2019-20	FY 2018-19	Change%
Sale of Coal	134979.13	140603.00	-4.00%
Less : Statutory Levies	45605.79	47706.92	-4.40%
Net Sales	89373.34	92896.08	-3.79%
Other Operating Revenue (Net)	6707.00	6689.53	0.26%
Revenue from Operations	96080.34	99585.61	-3.52%
Other Income	6105.40	5837.06	4.60%
Total Income	102185.74	105422.67	-3.07%

1. Revenue from Operations:

i. Sale of Coal

Sales are presented as gross sales(in notes to accounts) and net of various statutory levies(in Statement of Profit & Loss) comprising royalty, GST, GST Compensation cess, cess on coal, additional royalties relating to National Mineral Exploration Trust (NMET), District Mineral Foundation (DMF) and other levies etc. The income from sale of coal is mainly dependent on the pricing and production of coal and distribution thereof.



The gross sales of the company stood at ₹ 134979.13 Crores in FY 2019-20 against the previous year gross sales of ₹ 140603.00 crores. The net sales (net of all levies) for the year was ₹ 89373.34 crores. The net sales during the previous year was ₹ 92896.08 crores, thereby registering a decline of 3.79%.

During the year, the company achieved an offtake of 581.41 million tonne against 608.14 million tonne in previous year, registering a decline of 4.39%. The decrease in volume accounted for the fall in sales revenue. The revenue from sales includes the debit notes/credit notes issued on the basis of results of third party sampling, and is also netted off with provision of coal quality variance.

ii. Other Operating Revenue:

Loading and additional transportation charges

Major element of other operating revenue is on account of transportation charges recovered from the customers. The company charges transportation costs for transportation of coal to dispatch points under various slabs of distance and corresponding rates. The loading and transportation charges recovered (net of all levies) during the year was ₹ 3832.02 crores against ₹ 3853.99 crores in the previous year.

Evacuation Facility Charges

Evacuation Facility Charges are levied at ₹ 50 per tonne on all dispatches except dispatch through rapid loading arrangement. During the year, total revenue on account of evacuation facility charges (net of all levies) was ₹ 2392.91 crores against ₹ 2520.65 crores in the previous year. This was due to decrease in Offtake.

Revenue from services

Revenue from services includes consultancy and other services provided by CMPDIL, a subsidiary of CIL to parties outside the CIL's group. Revenue from services which also forms part of other operating revenue was ₹ 481.31 crores (net of levies) in 2019-20 as against ₹ 308.07 crores (net of levies) in 2018-19.

2. Other Income

Other income which includes interest income from deposits with banks, dividend from mutual funds, rental income, profit on sale of assets, write back of provisions and liabilities made in earlier years which are no longer required and other miscellaneous incomes.

During the year other income increased by 4.60% from ₹ 5837.06 crores in FY 2018-19 to ₹ 6105.40 crores in FY 2019-20.

The expenses incurred for progressive (concurrent) Site Restoration Activities in earlier years have been verified by the independent agencies (as per requirements of guidelines on Mine Closure issued by MoC) which are eligible for reimbursement from Escrow Account maintained for the purpose under Coal Controller. Thus Site Restoration expenditure eligible for reimbursement has been recognized as receivables from Escrow Account through liability/provision write back.

Further, the interest income increased by ₹ 142.63 crores even though the earning from dividend on investment in mutual funds decreased from ₹ 243.36 Crores in FY 2018-19 to ₹ 157.44 Crores in FY 2019-20. The increase in interest income was mainly owing to interest received on Income Tax refund.

B. Expenses

The detailed breakup of expenses is included in the annual financial statements.

Break up of Major Heads: -

1) Cost of Materials Consumed

Cost of material consumed relate to materials and items of stores used in coal mining and processing operations, primarily oil and lubricant (including diesel), explosives, HEMM spares and timber. Other consumables used in coal mining operations include tyres, spares for other plant and machinery relating to coal handling plants and beneficiation facilities, vehicles, and other miscellaneous stores and spares.

Cost of material consumed decreased by ₹ 265.97 crores, from ₹ 7331.43 crores in FY 2018-19 to ₹ 7065.46 crores in FY 2019-20 i.e. by 3.63%, mainly due to decrease in production volume by 4.75 Mill. Te.

2) Employee Benefits Expense

Employee benefit expenses constitute the largest component in the total cost, and are about 50.42 % of the total cost. The employee benefit cost during the year was ₹ 39384.08 crores as against ₹ 38772.85 crores in previous year.

Employee benefits expenses (for executive and non-executive employees) include salary, wages and allowances, provisions relating to Employee benefit, contributions to provident fund, pension and gratuity, overtime payments, leave encashment, attendance bonus, productivity and performance linked bonus and other incentives, and other employee benefits.

Employee benefits expenses increased by 1.58% only mainly due to increase in actuarial valuation of CPRMSE and Leave Encashment on account of change in actuarial assumptions.

3) Corporate Social Responsibility Expenses (CSR expenses)

The Company has framed CSR Policy on the basis of guidelines issued by Department of Public Enterprises and the provisions of Companies Act, 2013. The areas of CSR expenses, as per the said policy, includes education, making available safe drinking water, promoting preventive health care, social empowerment, promotion of sports, environment, contribution to PM RELIEF Fund etc.



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During the year total expenditure on CSR was ₹ 587.84 crores during FY 2019-20 as against ₹ 416.47 crores during FY 2018-19. CSR expense has increased by 41.15% due to contribution to PM CARES Fund for COVID-19 pandemic and for FANI Cyclone to Odisha Government.

4) Contractual Expenses

Contractual expenses primarily consist of transportation charges for coal, sand and materials carried out through third party contractors, contractor expenses relating to wagon loading operations, hiring charges for Heavy Earth Moving Machinery representing cost of coal extraction and overburden removal activities and other miscellaneous works carried out through third party contractors such as haul road maintenance at mines and temporary lighting etc.

Contractual Expenses increased by ₹ 573.71 crores, from ₹ 13337.84 crores in FY 2018-19 to ₹ 13911.55 crores in FY 2019-20, i.e. 4.30%. Hire charges of plant and equipment & Other Contractual Work has increased in the current year. The contractual expense comprises for both coal production as well as removal of overburden.

5) Finance Costs

Finance costs increased by ₹ 239.24 crores, from ₹ 263.68 crores in FY 2018-19 to ₹ 502.92 crores in FY 2019-20, i.e. 90.73%, mainly due to unwinding of discount on carrying value of Site Restoration Provision.

6) Stripping Activity Adjustment

In accordance with the Accounting policy of the company, in open cast mines with rated capacity of one million tonne per annum and above, the cost of Stripping is charged on technically evaluated average ratio (overburden: coal) at each mine with due adjustment for stripping activity asset and ratio variance account after the mines are brought to revenue. The net of balances of stripping activity asset and ratio variance at the Balance Sheet date is shown as Stripping Activity Adjustment under the head Non-Current Provisions or Other Non-Current Assets as the case may be.

The Stripping Activity adjustment (cost) varies from mine to mine depending on geo-mining condition of raising the overburden. During the year in certain mines Current Ratio became less than the Standard Ratio as compared to earlier years resulting in higher charge in profit and loss account during current year. In view of above, the Stripping Activity adjustment increased by ₹ 470.68 crores, from ₹ 5071.19 crores in FY 2018-19 to ₹ 5541.87 crores in FY 2019-20, i.e. by 9.28%.

7) Other Expenses

Other expenses includes various operational, selling and administrative expenses, under-loading expenses paid to Indian Railways, mine rehabilitation expenses, security expenses, and rent, rates and taxes, travelling expenses, employee training expenses, advertisement and publicity related expenses, freight charges for stores and materials, donations, demurrage paid to Indian Railways and hire charges for office administration equipment and other miscellaneous expenses .

Other Expenses decreased by ₹ 147.07 crores, from ₹ 4752.49 crores in FY 2018-19 to ₹ 4605.42 crores in FY 2019-20, i.e. by 3.09 %.

C. Cash Flows (in nutshell)

(₹ in Crores)

Particular	For the year ended 31 st March	
	2020	2019
Opening Cash & Cash equivalents	1,571.89	3,997.67
Net cash flow from operating activities	4,146.54	16,355.52
Net cash flow from investing activities	332.41	(7,896.46)
Net cash used in financing activities	(6,950.16)	(10,884.84)
Change in Cash & Cash equivalents	(2,471.21)	(2,425.78)
Closing Cash & Cash equivalents	(899.32)	1,571.89

Net cash flow from operating activities for the year ended March 31, 2020 decreased by ₹ 12208.98 crores i.e. by 74.65% from the previous year mainly on account of delayed realization of Trade Receivables.

Net cash inflow from investing activities was ₹ 332.41crores as against net cash outflow of ₹ 7896.46 crores for the previous year mainly due to redemption of Mutual Funds and maturity of deposits with bank.

Net cash used in financing activities for the year ended March 31, 2020 decreased by ₹ 3934.68 crores i.e. by 36.15% from the previous year. Net cash used in financing activities was ₹ 6950.16 crores as against ₹ 10884.84 crores for the previous year. The decrease in outflow from financing activity during current year was mainly attributable to Buy-Back of shares & more payment of dividend in previous year compared to FY 2019-20.

**D. Dividend**

During the year ended 31.03.2020, the company has paid interim dividend @ ₹ 12.00 (₹ 13.10) per equity share of face value of ₹ 10/- each amounting to ₹ 7395.27 crores (₹ 8105.58 crores).

E. The various ratios related to the financials of Coal India: -

Particulars	April to March '20	April to March '19	Variance
Profit Before Tax (As % Net Sales)	26.93%	29.20%	-7.77%
Net Profit (As % Net Sales)	18.69%	18.80%	-0.59%
Operating Profit as % of Revenue from Operations	19.22%	21.65%	-11.22%
Debtors Turnover ¹	11.48	18.47	-37.86%
Inventory Turnover	7.55	7.80	-3.20%
Return on Net Worth (%) ²	52%	66%	-21.34%
As % Total Expenditure			
Employee Benefits Expense	50.42%	49.52%	1.82%
Cost of Materials consumed	9.05%	9.36%	-3.31%
Power Expenses	3.18%	3.12%	1.92%
Contractual Expenditure	17.81%	17.04%	4.52%
CSR Expense ³	0.75%	0.53%	41.51%
Interest & Depreciation	5.06%	4.74%	6.75%
All Other Expenditure	13.73%	15.68%	-12.44%
Liquidity Ratios			
Current Ratio	1.72	1.51	13.91%
Quick Ratio	1.59	1.39	14.39%
Trade receivables as no. of days sales ¹	44.19	18.74	135.81%
Stock of Coal as no. of days of production (Qty) ⁴	45.51	32.57	39.73%
Interest Coverage Ratio (Borrowing Cost) ⁵	351.74	2197.51	-83.99%
Structural Ratios			
Long Term Debt: Equity Capital ⁶	0.32	0.24	33.33%
Long Term Debt: Net Worth	0.06	0.06	-
Net Worth: Equity Capital ⁷	5.21	4.29	21.45%
Earnings Per Share (in ₹)	27.12	28.14	-3.62%

- Debtors Turnover is Ratio of Gross Sales to Average Gross Debtors. The debtors turnover ratio has decreased and trade receivables as no. of days sales has increased due to delay in the realization of trade receivables. The management is continuously monitoring and following up for timely realization of trade receivables.
- Return on Net Worth has decreased as the Profit after tax has decreased by 4.38% whereas Net worth has increased by 21.57%. The main reason for an increase in net worth was higher dividend pay-out and buyback of shares in the previous year.
- CSR expense has increased due to contribution to PM CARES Fund for COVID-19 pandemic and for FANI Cyclone to Odisha Government.
- Stock of Coal as no. of days of production (Qty.) has increased due to accretion of inventory.
- Interest Coverage ratio indicates coverage of current interest payment with available earnings. Profit before tax during FY 2019-20 decreased to ₹ 24071.32 crores against ₹ 27126.87 crores in FY 2018-19, whereas interest on borrowing has increased due to short-term borrowings by subsidiaries mainly Bank overdraft taken by subsidiaries against pledge of Fixed Deposits. Hence, due to the above reasons, the interest coverage ratio has decreased in FY 2019-20.
- Debt equity ratio determines financial leverage of the company. For FY 2019-20 Long term Debt was ₹ 1993.38 crores and ₹ 1472.27 crores in FY 2018-19. Hence due to the increase in long term borrowing, Debt to equity became 0.32 times as on 31st March'2020 as against 0.24 times as on 31st March'2019. The long term debt mainly includes long term loans taken by two Subsidiaries of SECL namely CERL and CEWRL.
- Net-worth of the company includes share capital and other equity. For the FY 2019-20 Net-worth of the company stood at ₹ 32138.35 crores as against ₹ 26436.27 crores in FY 2018-19 mainly due to retention of profit during current year compared to the previous year.



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8.0 MATERIAL DEVELOPMENT IN HUMAN RESOURCES/INDUSTRIAL RELATIONS FRONT, INCLUDING NUMBER OF PEOPLE EMPLOYED.

I. Manpower

The manpower strength of the company as on 01.04.2020 against the previous year was as under: (In Nos.)

Year	Executive	Non-Executive	Total
1.04.2019	17,029	2,68,450	2,85,479
1.04.2020	16,124	2,56,321	2,72,445

The manpower strength has come down by 13,034 during 2019-20.

II. Talent/Skill Development Initiatives

To ensure regular learning and development of the employees, company has established Indian Institute of Coal Management (IICM), Ranchi as an apex Training Institute and in addition a Management Development Institute at every subsidiary, Vocational Training Centers in all projects and other Training Centers for imparting management and skill development trainings.

In financial year 2019-20, 80,379 employees have been trained in house, out of which 11,989 are executives. In addition, 5,359 employees were sent outside for training by reputed organisations out of which 4,512 were executives.

During the year, 6,55,136 training man-days were achieved for executives and non-executives registering a growth of 4.85% over the last year.

In CIL and its subsidiaries a total of 11,189 Apprentices were engaged through NATS and NAPS.

III. Talent Acquisition

CIL has recruited 215 fresh Executive cadre employees during the year 2019-2020 from various sources such as all India level open sourcing, Campus sourcing. They are being groomed as GenNext leaders through off-the-job as well as on-the-job training under the guidance of experienced senior experts in the company. This process facilitates easy transfer of tacit knowledge base of the organization from the elder generation to the GenNext leaders, besides easy adaptation into the organizational culture.

IV. HR Policy Initiatives

In the FY 2019-20, as HR Policy Initiatives, CIL formulated PRP methodology under 2017 Pay Revision, CIL Policy for engagement of Medical Consultants, Guidelines for engagement of retired Doctors & paramedical staff to combat COVID-19 pandemic, Operational guidelines of Talent Management Policy, Role profile of unique positions, CIL Executive Learning & Development Policy and CIL Executive Communication Policy.

Further, policies/ guidelines like CIL Executive Job Rotation & Transfer Policy, Promotion guidelines of E6 to E7, Company Secretary Internship Scheme, Coal India Travelling Allowance Rules 2010 and CIL Advisor Policy have been amended.

Also, amendments were made in the superannuation benefits of executives of CIL based on actuary reports under CIL Executive Defined Contribution Pension Scheme 2007 effective from 1st Oct'2017 and Contributory Post Retirement Medicare Scheme for Executives in the last FY.

V. Industrial Relations

a. Workers Participation in Management:

Several bilateral Committees such as Safety Committee, Housing Committee, Welfare Committee, Canteen Committee, etc. are functional in order to resolve the issues pertaining to service conditions, welfare, safety of employees.

b. Contract Labour Cell & Contract Labour Information Portal (CLIP):

As on 1st April'2020, 76042 Contract Labour provide support in various activities of the company. CIL had earlier launched a portal namely –Contract Labour Information Portal (CLIP) which maintains database of all Contractors and Contractor's workers.

c. Reservations:

CIL complies with the Presidential Directives on reservations in appointments and promotions as applicable for candidates/employees belonging to Scheduled Caste, Scheduled Tribe, OBC (NCL), PWD etc. Overall manpower of CIL constitutes 19.87 % SC, 15.67 % ST and 23.34% OBC as on 01.01.2020. Female employees of CIL constitute 7.03% of its total manpower.

d. Diversity Management:

CIL maintains unity in diversity by recruiting people from different regions through All India based open selection and campus selection from national level institutes.

e. Non-Discrimination:

All employees are treated equally and no discrimination is made on the basis of religion, caste, region, creed, gender, language etc.

f. Prevention of Sexual Harassment at workplace:

Sexual harassment of any form is a misconduct under the Conduct, Discipline and Appeal Rules applicable to executives as well as in the Standing Orders applicable to the non-executives. Internal Complaints Committees are in place in every subsidiary of CIL.



g. Freedom of Associations:

Employees are free to be a part of any registered Trade Union/ Employees' Association. Representation of employees is allowed in the bipartite bodies through Trade Unions / Associations, of representative nature.

h. Employee Welfare:

CIL adheres to a "total care approach" towards its employee. The employee welfare programmes addresses not only the need of employees but also their families with respect to housing, recreation, sports, health, education of children etc. The company has also developed medical facilities at all its operational areas. It has a strong network of 70 fully equipped Hospitals with 4405 Beds, 360 Dispensaries, 525 Ambulances and 1147 Doctors including Specialists as on 1st April'2020 to provide Medical Services to the employees and their families. Further, for specialized treatment, facilities are available at reputed empanelled Hospitals across the country. There are 62 public schools financed by the subsidiary companies to provide quality education. CIL also gives assistance to other schools in and around the coal field areas. The company provides scholarships to meritorious students and supports higher education of children of non-executive employees studying in Government Engineering Colleges & Medical Colleges.

i. Post-Retirement Medical Support:

CIL provides medical benefit to the employees and their spouses post retirement as per a well formulated scheme. The scheme envisages reimbursement of medical expenses for indoor and outdoor treatment for a maximum amount upto ₹ 8 lakhs and ₹ 25 lakhs to retired Non-Executives and Executives and their spouses respectively.

j. Social Security:

All employees are covered under the social security schemes in CIL as given below:

1. Gratuity: Upto 20 Lakhs as per Payment of Gratuity Act w.e.f 29.03.2018
2. Coal Mines Provident Fund(CMPF):All employees are covered under the Coal Mines Provident Fund scheme with equal share of contribution both by employees and the company.
3. Coal Mines Pension Scheme (CMPS):All employees are covered under the Coal Mines Pension Scheme by which, on superannuation, they receive upto 25% of their Basic and DA as monthly pension based on the average of last 10 months' payable earnings.
4. Life Cover Scheme: ₹ 1,25,000/- in addition to Gratuity in case of death of an employee while in service.
5. Ex-Gratia: In addition to Employee Compensation Act, Company provides additional ₹ 90,000/- as Ex-gratia and compensation of ₹ 15 lakhs w.e.f. 07.11.2019 in case of fatal mine accident to the next of kin of the deceased employee/ contractors' workers.
6. Employment/ Monthly monetary compensation in lieu of employment: It is provided to the eligible dependant of the deceased employee or who becomes medically unfit as per the well-defined scheme.
7. Defined Contribution Superannuation Pension Scheme for Executives: CIL has formulated a Pension Scheme for executives as per DPE guidelines covering Board and below Board Level Executives to provide superannuation benefit in the form of annuity through an Annuity Service Provider, post retirement.

9.0 ENVIRONMENT PROTECTION AND CONSERVATION

Environmental protection measures are taken concurrently with mining operations for maintaining acceptable levels of major physical attributes of environment namely air & water quality, hydrogeology, noise level & land resources. Suitable water spraying systems for arresting fugitive dust in roads, washeries, CHPs, Feeder Breakers, Crushers, coal transfer points and coal stock areas have been installed. Massive tree plantation is being carried out in and around mining areas and modern mining techniques are being practiced in the mines of CIL to reduce air and noise pollution. Effluent treatment facilities for mine, workshop & CHP effluents like oil & grease traps, sedimentation ponds and facilities for storage of treated water and its reuse have been provided for all the major projects. Domestic sewage treatment plants have also been established for treatments of domestic effluents. Recharging of ground water is also taken up within mine premises as well as in the nearby villages through rainwater harvesting, digging of ponds/development of lagoons and by de-silting of existing ponds/tanks etc. Since inception, the subsidiaries of CIL have planted around 100 million of trees covering an area over 39840 Ha.

10. CORPORATE SOCIAL RESPONSIBILITY

CIL as a corporate citizen is aware of its responsibility towards society and has not restricted itself from bettering lives of people staying near mines and other areas. Hence, as per its CSR Policy, the budget allocated for CSR activities for F.Y. 2019-20 was ₹ 207.52 crores (incl. carryover of ₹ 86.14 cr.), and it was not limited to the minimum statutory provisions i.e. ₹ 8.08 crores. CIL (Standalone) was able to utilize ₹ 171.32 crores for CSR during the financial year, more than the statutory obligation as per Companies Act 2013. CSR activities were undertaken under various thematic areas with Healthcare, Education, Skill development and Disaster management being the prominent ones among them.

Monitoring, an important aspect of community based projects, was greatly emphasized upon by CIL. Members /Representatives of below Board Level CSR Committee of CIL have visited all the major CSR projects and funds (second installment onwards) have been released only after the field visit reports being satisfactory. Stalled projects due to non-submission of Utilization Certificates (UCs) by implementing agencies have been revived after obtaining the Utilization Certificates. A committee with members from Internal Audit, Finance, Civil and CSR departments has been formed for inspection of all sanctioned projects having value more than ₹ 1 crore.



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The widespread public outreach of CSR activities is very important in order to establish and enhance CIL's image as a socially responsible company as well as to attract sincere partners as implementing agencies with innovative ideas for the upliftment of the underprivileged. To achieve this, updates and achievements under CSR were given wide publicity using print media and electronic media.

During FY 19-20, CIL has stepped up to play its part towards the society in times of crisis. A financial assistance of ₹ 50.32 crores was provided to Odisha Power Transmission Corporation Ltd. (OPTCL) for reinstating the damaged power transmission lines due to tropical cyclone Fani. CIL has also contributed ₹ 100 crores to the Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM-CARES) fund to help in control and relief measures for novel coronavirus (COVID-19) pandemic.

A major CSR project of CIL for holistic rural development in villages of Neturia block of Purulia district, West Bengal through The Energy & Resources Institute (TERI) has been duly recognized at national level and has been awarded as the Best CSR project in Rural Development category by NGO Box and also as the Best Global CSR project in environment category by Mahatma awards hosted by Live Week.

CSR budget vs expenditure for FY 19-20 for CIL (HQ)

Sl. No.	Item	Amount (₹ in Crores)
1	CSR budget as per minimum statutory provisions	8.08
2	CSR budget as per CIL's CSR policy (incl. carryover)	207.52
3	Expenditure incurred	171.32

Theme wise Expenditure during FY 19-20 by CIL (HQ)

Sl. No.	Thematic Area	Expenditure in F.Y. 2019-20 (Crores)	As a % of Total CSR Expenditure in F.Y. 2019-20
1	Healthcare	103.59	60.46%
2	Disaster Management	50.32	29.37%
3	Education	8.96	5.23%
4	Skill Development	5.85	3.41%
5	Other themes of Schedule VII	2.60	1.51%
Total		171.32	100.00%

ANNEXURE-A

S&T projects of Ministry of Coal during 2019-20

Sl. No.	Title of the Project	Implementing Agency	Remarks
1	Capacity building for extraction of CMM resource within CIL Command areas. Project code: CE/32	CBM Cell, CMPDI, Ranchi & CSIRO, Australia	On-going
2	Electronification of Ground Water Control and Conveyor System in Mines	NLC India Limited (NLCIL), Neyveli & National Institute of Technology Tiruchirappalli (NIIT), Tamil Nadu	On-going
3	Indigenous Development of Early Warning Radar System for predicating failures/slope instabilities in opencast mines Project code: MT/169	Society for Applied Microwave Electronics Engineering and Research (SAMEER), ARDE, Pune; CSRE; IIT-B, Mumbai and CMPDI, Ranchi	On-going
4	Shale gas potentiality evaluation of Damodar basin of India	NGRI, Hyderabad; CIMFR, Dhanbad and CMPDI, Ranchi	Completed
5	Investigation Pertaining to geotechnical & hydrogeological aspects to stabilize the non-cohesive granular soil/sand in the opencast mines adjacent to the major perennial river	Civil Engineering Department, IIT, Bombay; RI-IV, CMPDI, Nagpur & WCL, Nagpur	On-going
6	Techno-economic evaluation and performance behavior of Self Advancing (mobile) Goaf Edge supports (SAGES) (Phase-II)	IIT-ISM, Dhanbad and Jaya Bharat Equipment Pvt. Ltd., Hyderabad	On-going
7	On-Line Coal dust suppression system for opencast mines	Centre for Development of Advanced Computing, Tiruvanthapuram; Mining Electronic Department, CMPDI, Ranchi	On-going
8	Constructing structure on backfilled open Cast Coal Mines: An attempt to suggest viable methodologies	IIT-ISM, Dhanbad and Civil Engineering Division, CMPDI, Ranchi	On-going



Sl. No	Title of the Project	Implementing Agency	Remarks
9	Development of Indigenous catalyst through pilot scale studies of Coal-to-liquid (CTL) conversion technology	CIMFR, Dhanbad and CMPDI, Ranchi	Completed
10	Coal Bed Methane (CBM) reserves estimation for Indian Coalfields	IEST, Shibpur; CMPDI, Ranchi; TCE; Kolkata and NGRI, Hyderabad	On-going
11	Design and Stability of Pillars/Arrays of Pillars for Different Mining Methods in Coal Mine Workings	CIMFR, Dhanbad; IIT-ISM, Dhanbad & SCCL	On-going
12	Hybrid PRESRIX process for simultaneous remediation of acid mine drainage and recovery of individual metal sulphides	IIT, Roorkee; NEC, Margherita & SCCL	Completed
13	Reclamation of coal mined land of North Eastern Coalfields, Assam through soil amendment and revegetation with native plant species using integrated biological approach	RFRI, Jorhat & NEC, Margherita	On-going

CIL R&D PROJECTS during 2019-20

Sl. No.	Name of the Project	Implementing Agency	Remarks
1	An integrated geo-physical approach for tectonic study in main coal basin of Singrauli coalfield using 3D inverse modeling of Gravity, Magnetic and AMT data.	IIT-ISM, Dhanbad and CMPDI (HQ), Ranchi	Completed
2	Development of guidelines for prevention & mitigation of explosion hazards by risk assessment and determination of explosibility of Indian Coal incorporating risk based mine emergency evacuation & re-entry protocol.	IIT-ISM, Dhanbad, CIMFR Dhanbad, S&R Div. CIL, Kolkata	On-going
3	Demonstration of coal Dry Beneficiation system using Radiometric Techniques (Ardeesort).	CMP Deptt, CMPDI, Ranchi Ardee Hi-Tech Pvt. Ltd, Visakhapatnam	On-going
4	Indigenous Development of Through the Earth (TTE) Two-Way Voice Communication System for Underground Mines.	IIT, Bombay & CMPDI	On-going
5	Design of cost effective process flowsheet for improved washing efficiency of Indian Coking & Non-Coking Coals"	IIT-ISM, Dhanbad; CMPDI & BCCL	On-going
6	Assessment of applicability and performance of Ground based Interferometry Synthetic Aperture Radar (GblnSAR) in safety zoning of surface mining slopes	IIT, KGP & ECL, Sanctoria	Completed
7	Optical fiber based solar illumination of pit bottom and underground mine roadways and working face.	IIT, KGP & ECL, Sanctoria	On-going
8	Development of Virtual Reality Mine Simulator (VRMS) for improving safety and productivity in Coal mines	IIT-ISM, Dhanbad; CMPDI Ranchi; BCCL & NCL	On-going
9	High ash coal gasification and associated upstream and downstream processes (coal to chemical-CTC)	IIT-ISM, Dhanbad; IIT-Roorkee; CMPDI-Ranchi; MCL; ECL & CCL	On-going
10	Dry beneficiation of High Ash Indian Thermal Coal	NML-Jamshedpur; CMPDI, Ranchi & MCL	Completed
11	Development of Guidelines for Increasing the Height of Overburden Dumps at opencast Coal Mines in India	IIT, Delhi and CMPDI, Ranchi	On-going
12	Development of a methodology for regional air quality monitoring in coalfield area using satellite data and ground observations.	NSRC, Hyderabad and CMPDI, Ranchi	On-going
13	Requirement of air in mine for Mass Production Technology	Underground Mining Division (UMD), CMPDI	On-going
14	Studies of techno-commercial efficacy of ANFO with low density porous Prilled Ammonium Nitrate for blasting overburden in Coal mines	CMPDI, Ranchi and DFPC, Pune	Completed



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Sl. No.	Name of the Project	Implementing Agency	Remarks
15	Seismic data processing, interpretation and identification of thin coal seams using Inverse Continuous Wavelet Transform Deconvolution (ICWT-Decon) for resource estimation	Gujarat Energy Research and Management Institute (GERMI), Gandhi Nagar	Completed
16	Development of guidelines for design of all tiers of shovel-dumper dump above dragline dump, with delineation of phreatic surface, within dragline dump, throughout the year and validation study on two dragline mines of Coal India Limited (CIL)	BIT, Mesra & S&R Division, CIL(HQ), Kolkata	On-going
17	Multiple layer trial blasting for better recovery with less diluted coal.	IIT-ISM, Dhanbad & CMPDI, Ranchi	On-going
18	Restoration of Orchid flora of Makum Coalfields areas of Digboi forest division	RFRI, Jorhat & NEC, Margherita	On-going
19	Design guidelines for underground coal extraction beneath massive competent strata: a case study validation	WCL, Nagpur & CIMFR, Dhanbad	On-going
20	Underground Trapped Miner Location system	TCS, CMC & CMPDI, Ranchi	On-going
21	Design and development of an integrated system for monitoring and control of man and machine, to enhance safety and security in mines.	CIMFR, Dhanbad; Aryan IT Solutions (AITS), Dhanbad and CCL, Ranchi	On-going
22	Development and adoption of Real-Time Prognosis System (RTPS) for cost effective safe operation of mobile machinery: show-cased demonstration of dumper fleet.	IIT, Kharagpur; CIMFR, Dhanbad; Lulea Technological University(LTU), Sweden and ECL, Sanctoria	On-going
23	Development of suitable Paste Fill material from Fly Ash (Power Plant Reject) and its transportation system to underground coal mines for stabilization of working as an alternative of sand stowing for increasing the percentage of extraction of coal with due regard to safety and environment to ascertain its cost effectiveness in Sarni UG Mine, Pathakheda Area, WCL	WCL, Nagpur and CIMFR, Dhanbad	On-going